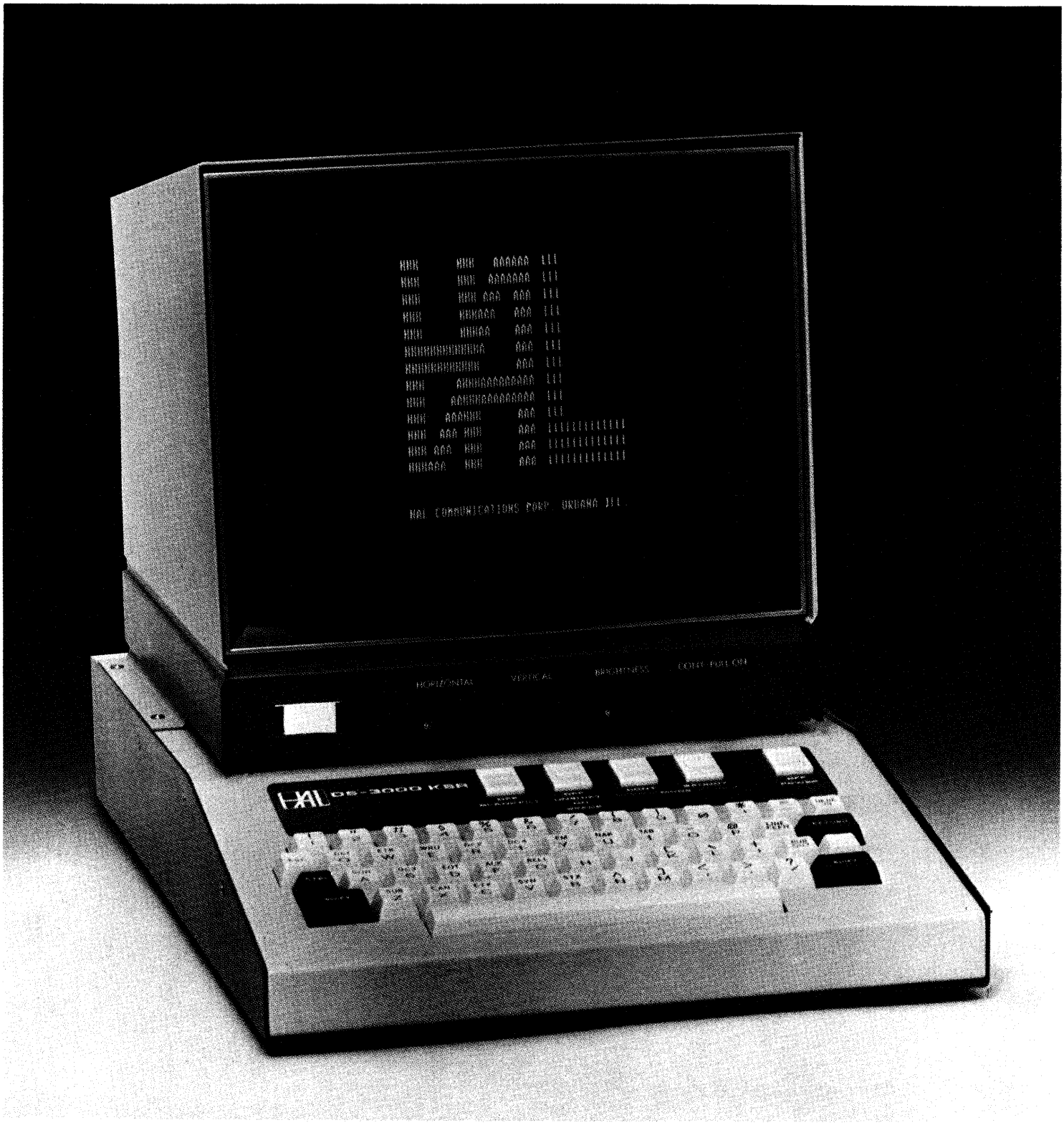
HAL COMMUNICATIONS CORP.

DS-3000 KSR AND RO VIDEO DISPLAY TERMINALS



GENERAL

The HAL KSR and RO terminals employ the latest developments in integrated circuit technology to provide a silent, reliable, all electronic terminal for transmission and/or reception of Baudot (5 level) and/or ASCII (8 level) code data. These terminals use the powerful 8080A microprocessor family of integrated circuits to achieve full cursor positioning and editing capability (KSR), display of up to 1152 characters organized as 16 lines of 72 characters per line, selectable letters shift on space, and non-overprint capability. Use of the microprocessor allows unparalleled flexibility in meeting special requirements, and in guaranteeing that the unit which fills your needs today will do so tomorrow. The terminal accepts demodulated signals from radio or wire links, and provides a composite video signal to the video monitor. Keyboard send-receive (KSR) models include the DS-3000 KSR Version 1.X for Baudot code and the DS-3000 KSR Version 2.X for ASCII or Baudot code transmission and reception. Read-only (RO) models include the DS-3000 RO Version 1.X for Baudot code and the DS-3000 RO Version 2.X for ASCII or Baudot code reception. The X refers to the issue of software for a particular version.

SPECIFICATIONS

Electrical

Input Data Form: DS-3000 Version 1.X Serial Baudot (5 level) code.
DS-3000 Version 2.X Serial ASCII (8 level) or Baudot code, switchable.

Input Data Signal—Voltage of current sensing
Voltage compatible with RS-232C

Mark:	−5 to −15 VDC
Space:	+5 to +15 VDC
Impedance:	120 ohms or greater

Current sensing

Mark:	18-120 ma
Space:	0- 2 ma
Impedance:	20 ohms or less
Isolation to case:	10 megohms or greater

Input Data Rate, Baudot Code
45 baud (60 WPM, select time = 22.0 msec.)
50 baud (66 WPM, select time = 20.0 msec.)
57 baud (75 WPM. select time = 17.57 msec.)
74 baud (100 WPM, select time = 13.47 msec.)
100 baud (132 WPM, select time = 10.0 msec.)

Input Data Rate, ASCII Code
110 baud (10 CPS)
150 baud (15 CPS)
300 baud (30 CPS)
600 baud (60 CPS)
1200 baud (120 CPS)

Rates are selected by keyboard control key (KSR) or switch (RO). Higher baud rates are optional. Consult factory for applications assistance.

Data Rate Stability: Crystal controlled to ± 1%.

Word Format
Baudot: 7.5 unit code.
ASCII: 10 or 11 unit code. Parity, spacing.

Video Output

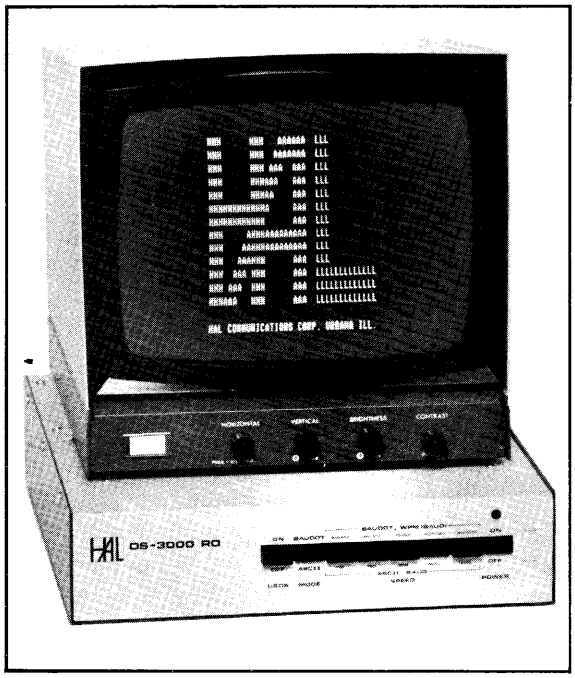
Lines per frame:	520 non-interlaced, or 624 non-interlaced (optional)
Line and field rate:	15.625 KHz, 60 Hz, or 15.625 KHz, 50 Hz (optional)
Timing:	Crystal controlled to ± 0.1%.
Composite Video:	1.0 v p-p
Sense:	Negative Sync
Output Impedance:	75 ohms
Peak Video Bandwidth:	6.1 MHz

Display

Display Capacity:	1152 characters
Character Format:	5 x 7 dot matrix
Page Format:	16 lines, 72 characters per line
CRT:	11" diagonal measure (61 sq. inches)

Keyboard (KSR)
Standard 52 key ASCII keyboard with shift and control and N-key rollover.
Quick Brown Fox test message key.
Programmable character string of up to 255 characters.

Bell
Audible tone when bell code is received.



Terminal Operation

Receive mode:	Incoming data is normally written from the top line of the display down. After the bottom line on the page has been filled, the page scrolls up and new data is entered on the bottom line.
End of Line Sequence:	CR-LF-LTRS on RETURN or after the 72nd printing character in line or word mode. CR on RETURN and LF-LTRS on LF in continuous mode.
Data Entry (KSR):	The cursor home position is the first column of the top line. Data is normally entered starting at this point and the page scrolls up after the bottom line on the page is filled. Data may be entered at any point by positioning the cursor to that point.
Cursor Control (KSR):	Left (←), Right (→), Up (↑), Line Feed (↓), carriage return, home (form feed), Rubout (←). Rubout backspaces and deletes. The cursor shows the location of the next character.
Continuous Transmission Mode (KSR):	Data is entered into the 256 character output buffer and transmitted as soon as a key is pressed.

Word Transmission Mode (KSR):	Data is displayed as soon as a key is pressed, but is transmitted only when a character following a space is typed. This allows for individual word editing by backspacing and re-typing.
Line Transmission Mode (KSR):	Data is entered into the buffer and held there until the RETURN key is pressed. Thus, an entire line can be typed and edited before transmission.
Page Transmission Mode (KSR):	The entire screen (or "page") may be written and edited before transmission. The cursor can be moved to any position on the page and the necessary changes made.
Word Wrap-around (KSR):	If a word extends past the end of the line, CR-LF-LTRS is automatically inserted after the space preceding the word, and the word is moved to the beginning of the next line. This prevents splitting of a word at the end of a line by the automatic end of line sequence. This feature is active only in word and line transmission modes.
Blankfill (KSR):	Blankfill transmits blank codes whenever the output buffer is empty. This keeps the receiving terminal running at full speed even though the typing speed might be less than full speed. Blankfill is active only in word mode or line mode.

Physical

Cabinet Finish: Textured light blue bottom and sides, beige top. Monitor housing beige with light blue trim.

Size:	KSR 13.5 H x 18 D x 12 W (inches) 34,3 H x 45,7 D x 30,5 W (cm) RO 13.5 H x 14 D x 12 W (inches) 34,3 H x 35,5 D x 30,5 W (cm)
Weight:	KSR 28 lbs. (12,7 kg) net, 35 lbs. (15,9 kg) shipping. RO 26 lbs. (11,8 kg) net, 33 lbs. (15,0 kg) shipping.
Power:	105-125 VAC (210-250 VAC optional), 50-60 Hz 70 watts.

OPTIONAL EQUIPMENT

Video Monitor

HAL can supply broadcast quality video monitors with 9, 14, 17, and 23 inch diagonal measure CRT as well as the 11 inch monitor normally provided. Please refer to the video monitor data sheet.

Rack Mounting Adaptors

HAL can supply rack mounting adaptors for both the KSR and RO models of the DS-3000 unit.

ORDERING INFORMATION

When ordering specify model number, mains voltage, video output, and rack mount if desired.

Manufactured by:

HAL Communications Corp.
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Phone 217-367-7373

Representative or Distributor:

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